

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Onoue Sei-ichi et al.
Appl. No. : 10/596,590
Filed : Jun 16th, 2006
For : Aqueous Coating Composition
Examiner : Karuna P. Reddy
Group Art Unit : 1796
Confirmation No. : 8151

THIRD DECLARATION UNDER 37 C.F.R. §1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Seiichi Onoue declares and states that:

1. I am a co-inventor of the above identified patent application and familiar with the specification and prosecution history.

2. I received a Master Degree in Engineering in 1999 from the KINKI University.

3. Since 1999, I have been employed by SK KAKEN CO. LTD, and working as an engineer for 9 years.

4. I have prepared Comparative Example 1-6 at pH 4.5, Example 1-7 at pH 7.8 and Comparative Example 1-4 at pH 8.0 in accordance with the present specification, and efflorescence resistance test was conducted by the method similar to the one described in the previously submitted evaluation and the test results are presented in the attached. Also, anti-staining properties test were conducted as described below and the test results are presented in the attached.

<Anti-staining Properties Test>

Mirac Sealer Beo W(an acrylic resin-based primer; manufactured by SK Kaken Co., Ltd.) was spray coated to a slate board of 150 mm x 75 mm x 3 mm so that a dry film thickness become 30 μ m and the board was dried under standard condition for 8 hours.

Next, a white coating composition comprising 200 parts by weight of an acrylic resin emulsion (solid content: 50% by weight) and 70 parts by weight of titanium oxide was spray coated so that a dry film thickness become 0.2 mm and the film was cured at 50°C for 24 hours.

Then, each coating composition was spray coated so that a dry film thickness become 0.1 mm and the film was cured for 7 days under standard conditions to prepare a test sample.

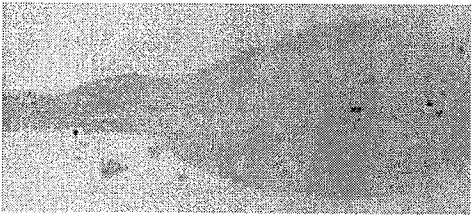
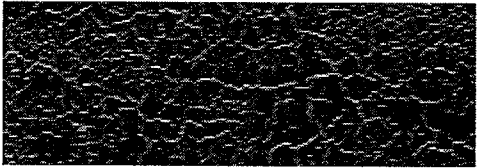
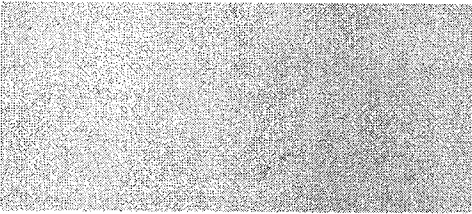

The test sample obtained by the above method was fixed at the angle of 60° from the horizontal plane, and 1.0 ml of 0.25% by weight of an aqueous solution of carbon black was dropped from the position at 30 mm distance from the test sample, followed by allowing to stand for 2 hours under standard condition and washing, after which time the degree of the surface standing was observed.

5. As a result, in Comparative Examples 1-4, and 1-6, even if the pH of the colloidal silica is slightly off the claimed range of 5-7.8, the samples indicate lower resistance to rain trace and efflorescence resistance. On the other hand, Example 1-7 whose pH is within the claimed range indicates excellent result, which proves a criticality of the claimed range.

6. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or patent issuing therefrom.

Dated: May 11, 2009

By: Seiichi Onoue
Seiichi Onoue

	anti-staining properties	efflorescence resistance
pH8.0		
pH7.8		
pH4.5	